



**Responses from Ohio Public TV stations
using Ohio's Joint Master Control
For July 14, 2022
Engineering & Broadcast Operations Committee
Meeting**

WBGU (Bowling Green)

WOSU (Columbus)

ThinkTV – WCET (Dayton, Cincinnati & Oxford)

WGTE (Toledo)

Prior to the next meeting a different survey will be sent to the three Ohio Public TV stations not depending on BEMC for Master Control services.

**Survey of Ohio Public TV Leaders
Summer 2022
For Ohio Public TV Station
USING Ohio's JMC for Master Control of its channels**

WBGU

1. **Share why your station is using Ohio's JMC for Master Control for your channels.**

The main reasons WBGU uses the JMC is economical and efficiencies. WBGU doesn't run a backup local automation or media management system, nor do we have a need for 24/7 personnel monitoring of our air signals thanks to the BEMC. The efficiencies offered to all Ohio stations by having a JMC haven't really changed since its inception. It makes economical and efficacy sense to have one location recording live feeds and downloading/storing the media used by the majority of PBS stations. Most of the Ohio PBS stations will air a certain percentage of the same content, maybe not at the same time, but each station recording episodes of NOVA, NATURE and Antiques Roadshow and paying for the storage and management of that media wasn't the most efficient way of using the media. There was/is another advantage in that all of the Ohio stations and the JMC were already connected via redundant fiber.

2. **In looking to evaluate the success of Ohio's JMC, what are the benchmarks you use to track performance and measure your participation in the joint master control?**

The 99.999% up time is the standard, we believe they are hitting that for WBGU. Not only is the uptime important but also the accuracy, airing the correct programs, communicating issues beforehand with our log generation in a timely manner. WBGU believes the BEMC does this well, and honestly, as good if we had our own local system automation, media management/QOS systems.

3. **If you were to improve the current Joint Master Control (JMC) what would you do?**

Bring the back the monthly or quarterly service reports for the stations using the JMC for all of their broadcast channels. Another item would be a web browser based system where our programming/traffic folks can check/view the content in the JMC asset management system from remote locations, even if through VPN.

4. **Tell us if we had a blank sheet of paper how would you use central casting technology?**

I am not sure we would use it differently. The core business model of broadcasting really has not changed. We still have linear channels and live streams driven by automation, media management and monitoring as the core needs. There are certainly some adaptations that technology can provide in how that is delivered but the core functions/needs are still the same. There are other IP/streaming delivery methods that have come about already and the BEMC has already worked with the national PBS tech staff to accomplish those. The example being the PBS sIX system where our over the air channel(s) are fed to the cloud. Then MVPDs (YoutubeTV, SlingTV etc...) and even satellite companies (Dish & DirecTV) can ingest our channels into their delivery systems to our viewers using them vs over the air reception.

5. If JMC goes away – what would you do?

We do not want the JMC to go away as we are currently happy with our working relationship the BEMC/Ohio JMC

If it were to go away, we would explore options with another JMC as well as purchasing/supporting our own local system again. There would be an additional cost of going with another JMC, both in operational and connectivity, costs that we currently do not have with the BEMC, possibly sending money to another state entity. If we were to purchase our own automation system again, there are capital costs, support costs and additional personnel needs to be considered as well as additional monitoring systems/software.

WOSU

1. Share why your station is using Ohio's JMC for Master Control for your channels

For efficiency, both fiscally and operationally. With the reduction of WOSU Master Control staff in May of 2011 and the loss of national funding to replace end-of-life digital media storage and playout systems, WOSU decided to use the Ohio JMC as a way to save costs and improve efficiency. WOSU uses the JMC for on-air functions for our four TV services. Access to the Ohio JMC is an invaluable resource for our operations.

2. In looking to evaluate the success of Ohio's JMC, what are the benchmarks you use to track performance and measure your participation in the joint master control?

We look at ticketed issues to determine off-air and playout occurrence issues and track them to determine reoccurring issues or if they are related to Ohio JMC problems. The Ohio JMC gives us round-the-clock services for all our channels and is just a phone call away should we have any issues. To date, we have been pleased with the services we receive from the Ohio JMC. Many improvements have been made since the service first launched.

3. If you were to improve the current Joint Master Control (JMC) what would you do?

Some of the things that WOSU would like to see are:

- Better communication on the status of projects for internal planning purposes.
- Assurance the Ohio JMC is keeping up to speed on the technology developments and projects connected to the PBS sIX delivery system so stations using the Ohio JMC are not left behind.
- Resolve the intra-connectivity issues with the Magnubox, affecting the ability for the Ohio JMC to upload content to sIX affecting our Phase C on-boarding.
- Updated graphics package to allow stations more functions, i.e. animated lower thirds controlled by secondary log events.
- Provide additional channels allowing stations to expand their services.
- The ability to hold local content longer.

4. Tell us if we had a blank sheet of paper how would you use central casting technology?

We don't believe the current system could be used differently without a complete

overall and reconfiguration. It is designed to do what it currently does but does not allow for much change in use. We are tied to using it the way it is. If there was any opportunity for a change, then it should be up to the Ohio stations to determine what is needed to meet the needs of the individual stations and end users of all the services.

5. If JMC goes away – what would you do?

We would have to take the costly step of investing in the technology necessary to run an effective master control operation. We would not be able to provide the services or operations we currently have. We would be forced to find emergency funding to install a complete video and audio digital storage and playout system that could maintain the reliable and cost-effective service we offer with our multiple channel services over the air. This would also involve hiring staff to manage, maintain and operate the system. This would put considerable financial strain on our organization.

WCET, WPTD & WPTO

- 1. Share why your station is using Ohio's JMC for Master Control for your channels.**

With the JMC, we have access to thousands of programs that may not be available to our stations otherwise. Their library contains many shows that were produced over 20 years ago that are probably not available anywhere else. Our combined stations have 15 channels available to program. Ohio JMC currently has 9 of those channels in their control. JMC gives us access to programs to share with other Ohio stations and provides us with shows we need for air on the channels we control. JMC master control operators work with our traffic department to work out any issues with programs or interstitials in a timely manner.

- 2. In looking to evaluate the success of Ohio's JMC, what are the benchmarks you use to track performance and measure your participation in the joint master control?**

We would look at the number of technical issues happening on each channel. If a channel is off the air, experiencing outages or having audio issues for an extended period of time, we would consider taking control back of that channel (if possible) until those issues are resolved. We look at the discrepancy reports sent from BEMC and address the issues if they continue. Watch for any problems with live programming or quick changes or turnaround of shows.

- 3. If you were to improve the current Joint Master Control (JMC) what would you do?**

Possibly an easier or more efficient way to transfer media (promos/ids) from ThinkTV or CET production departments.

- 4. Tell us if we had a blank sheet of paper how would you use central casting technology?**

There's nothing new in the utilization of central casting technology. On paper, stations use it—or would use it-- in the manner for which it was intended over the past 20 years.

There are two issues at hand.

The first is interfacing different technologies that member stations utilized with the advent of Ohio's JMC. The interface could work better or worse depending upon the station. So, the idea of a JMC doing the heavy lifting for stations was appealing in theory, but then hit a stumbling block if a given station's operating

systems didn't match up well with what was in Columbus. In effect, a given Traffic department might have as much or more work than they ever had to do... simply to adapt to the other system. Think of it as a currency exchange and adding that to the equation is just another layer of work that was unforeseen at the outset.

Much of this might be solved as we eventually transition to 3.0. and both stations and the JMC can be on the same page from the start in matching systems so that transfer of media in both directions is seamless.

But the other issue is that stations need to function in a more timely and urgent manner, and the JMC isn't at that level with its broadcasters.

For commercial broadcasters, money is strictly on the line. So, if there are technical issues, especially those that affect ad buys, those issues get handled with the utmost urgency.

Public broadcasters don't operate with quite that level of urgency, but it is still our air, and we do hear from the viewing public when it doesn't look or sound right... or the wrong episode hits the air and a "make good" is in order.

The JMC is all the further removed from the viewing public, so the urgency to react quickly to a last-minute curve ball, or to fix an ongoing technical issue, is not as great. That's probably why channels are allocated the way they are. Digital subchannels have far less of an audience, so mistakes there can be more forgiving. Not so with the primary channels.

And if the benchmarks don't substantially change (off air outages, audio issues, etc.), then that's reflected in what channels are allocated to Columbus, and which stay with the station.

5. If JMC goes away – what would you do?

Without access to the large library of programs at JMC, we could possibly have to drop channels or reprogram them. ThinkTV could take control back of some channels if we have all the equipment in place.

WGTE

1. **Share why your station is using Ohio's JMC for Master Control for your channels.**

The Ohio JMC has been and continues to be an interim solution until WGTE is able to work fully and directly with PBS for receipt and distribution of content. As soon as WGTE's local master control system is fully operational, the Ohio JMC would be relegated to an emergency backup service.

2. **In looking to evaluate the success of Ohio's JMC, what are the benchmarks you use to track performance and measure your participation in the joint master control?**

The primary benchmark is continuity, specifically tracking the variance between what is scheduled for playout and what is actually aired. A subset of this is the accuracy of the monitoring system (which can include operating personnel) to recognize that a variance has occurred. Other factors include the response time in correcting a recognized variance, determining the cause of the variance and providing reports on the causes in order to address trends and implement improved processes. The present discrepancy report system at Ohio's JMC does provide reasonable tracking and analyses of known issues. However, there have been issues unknown to the JMC monitoring and reporting process that have been observed by WGTE personnel, reported to BEMC staff and verified as having occurred. We believe these rare instances are understandable, given the present state of monitoring technology.

3. **If you were to improve the current Joint Master Control (JMC) what would you do?**

The following thoughts about improvement are predicated on the Ohio JMC remaining available when stations are functionally connected with PBS for content receipt and distribution. Too, the thoughts reflect current thinking regarding the evolution of such systems. Consideration should be given to replacing the fully centralized "hub and spoke" configuration with a distributed system, where each station maintains a local video playout, graphics insertion and branding capability for each channel. The network operations center (NOC) should maintain some percentage of this capability as backup, or as a supplement to the stations' operations. The automation and monitoring facilities should likewise be distributed to allow seamless transitions among local and remote operations as desired. The NOC should continue to serve as archival media storage, but traffic systems at each station should have information about and access to media from every storage location. A main tenant of this master control concept is each station would retain full autonomy and could possibly lead to 100% station participation.

4. Tell us if we had a blank sheet of paper how would you use central casting technology?

The current JMC is likely too specialized or customized for its current service delivery and would need to be fully reconfigure. Future investment in service evolution of the Ohio JMC, if any and to what extent, would have to be driven by the stations so that the JMC can meet the needs of the stations, the end users and beneficiaries of such services.

5. If JMC goes away – what would you do?

Accelerate investments in our stand-alone, operational independence. WGTE continues to advance its planned return to local master control operations afforded by the extra efficiencies of the sIX interconnection system, which will enable WGTE and the rest of the stations to maintain an excellent, reliable, and cost-effective content distribution system.